

# Return on Investment (ROI) Program Funding Application

## Contact Information:

**Date:** 7/20/2007  
**Agency Name:** Iowa Homeland Security and Emergency Management Division (HSEMD)  
**Project Name:** Living Disaster Recovery Planning System (LDRPS)  
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**Executive Sponsor:** David Miller, HSEMD Administrator

**Amount of Funding Requested:** \$256,000

## Purpose of Application

The Iowa Department of Public Defense, Homeland Security and Emergency Management Division (HSEMD), seeks ROI Program Funding to support a portion of program costs associated with disaster plan management software used in state government, specifically in the Executive Branch. The amount requested will be used for continuing administrative and technical support of this enterprise-wide tool for emergency preparedness.

## **Section I: Project Description:**

STROHL Systems' Living Disaster and Recovery Planning System (LDRPS) software is currently implemented for the development and maintenance of Continuity of Operations (COOP) and Continuity of Government (COG) plans in the Executive Branch. COOP and COG, also known as business continuity planning, identifies how an organization may either maintain or quickly resume their essential functions or critical services in an emergency situation.

In coordination with a state agency management team, HSEMD has begun the Executive Branch-wide implementation of LDRPS. The LDRPS management Group consists of partners from the following state agencies:

- Department of Human Services (DHS)
- Department of Administrative Services-Information Technology Enterprise (DAS-ITE)
- Department of Transportation (DOT)
- Department of Natural Resources (DNR)
- Iowa Workforce Development (IWD)

Agency-specific implementation of LDRPS is facilitated through guidance from HSEMD and the previously mentioned LDRPS Management Group. Existing continuity plans throughout the enterprise will be migrated into LDRPS with subsequent maintenance and enhancements occurring through direct agency-level interface with the LDRPS. This work started on July 1, 2007 and several key agencies have already begun the implementation process.

Full LDRPS implementation and the migration of individual departmental continuity plans from MS Word documents to LDRPS will occur in State Fiscal Years 2008-09. The longer term intention is to sustain COOP/COG plans on a true enterprise platform, with HSEMD facilitating the planning work and DAS-ITE managing the information technology aspects.

In FY09, the priority needs for technology dollars through the ROI Program is support for LDRPS administration and state agency technical assistance for training on the LDRPS tool. The LDRPS administration and technical assistance is currently supported by the FY08 ROI funding. This application will secure the LDRPS administrator support position for an additional year and secure funding for additional training. Longer term software administration is anticipated to be transferred to DAS-ITE in FY10. To sustain ongoing COOP/COG work, additional state funding is necessary to ensure the successful implementation of LDRPS across state government. Additional funding is also requested to continue developing a functional program with an IT component that could be administered by DAS-ITE in FY10.

#### Technology Used and Integration with Agency and Enterprise Wide Standards

LDRPS is not housed or maintained by HSEMD. DHS currently houses the software on the ITE Data Warehouse and users access it via an Internet connection. This tool is tested within the state's technology infrastructure and is compatible. Please refer to the attachment named *LDRPS System Requirements* for a further understanding of its fit with current technology standards. This arrangement will stay in place for FY09 with the intent of migrating the software administration to DAS-ITE in FY10.

#### Agency Strategic Plan

This project is tied directly to the Iowa Strategy for Homeland Security and Emergency Management, 2006-2008:

*"Objective 2.1: Ensure critical infrastructure is protected in the State of Iowa."*

*"Objective 2.2: Ensure that contingency plans are in place for continuity of government, operations and private sector functions at all levels to sustain critical services and programs in the event of an emergency."*

#### State Strategic Plan

This project is tied directly to the Enterprise Strategic Plan by supporting the value of security and through the improvement of government accountability and infrastructure, in particular, reinventing Iowa government to provide better services at less cost and investing to maximize productivity and minimize life cycle costs.

#### Governor's Office Participation

The continuing refinement and development of the Executive Branch's COOP/COG efforts have received support from the Governor's Office. HSEMD staff have briefed Lt Governor Judge, the state's Homeland Security Advisor, on COOP/COG and LDRPS. Work has begun on the migration of the Governor's Office COOP/COG plan into LDRPS.

#### Enterprise Wide or Multi-Agency Agenda

In the first month of FY 2008, HSEMD staff notified Executive Branch agency COOP/COG coordinators of the migration to LDRPS for the development and maintenance of statewide continuity plans. Several key agencies have already begun working with the LDRPS Administrator on their plan migration.

## **Section II: Expected Results**

### Impact on Citizens

The purpose of COOP/COG planning is to ensure survival of a constitutional form of government and continuity of essential state functions under all circumstances. Iowa's citizens should expect to receive, and state agencies must be prepared to deliver essential services to citizens and customers regardless of situation or circumstance. Enterprise wide implementation of LDRPS will result in a timely and orderly approach by state agencies to the prioritization, continuation, and/or restoration of essential services during and/or after an event that threatens the delivery of those services our citizens depend on and expect.

### Impact on Other Agencies

Every agency, commission, or board in state government has a distinct mission, or charge, as laid out by the Constitution of Iowa, Iowa Code, Executive Order, or other directive. The essential services these agencies conduct are a direct extension of the goals and objectives outlined by agency-level strategic planning in order to successfully achieve their missions. Enterprise wide implementation of LDRPS makes it easier for COOP/COG coordinators to manage their agency's continuity planning programs by providing an efficient tool for the inventory, collection, organization, and distribution of their continuity plans as they relate to these essential services.

Another positive impact of the migration to LDRPS for state agencies is that continuity planning is made easier through the template and menu structure provided within the LDRPS software. The continued technical assistance this application proposes will aid the smooth transition of agency plans from MS Word to LDRPS and ease the burden on COOP/COG coordinators from independently experiencing the learning curve associated with the use of any new software program. This funding will also relieve the funding burden that would otherwise fall upon each agency, an action that would prevent many agencies from participating in this important initiative. Currently, the only requirement of state agencies is the time and staff resources needed to work on their COOP/COG plan. At some point it is expected that agencies will shoulder more of the cost burdens, but in the early stages their participation will be more likely if this cost is supported by an enterprise-wide source.

As a result of a new administration, many state agencies have experienced turnover at the Department Director level. This has caused a certain degree of re-education of department directors in regard to the ongoing COOP/COG work. Through the enterprise-wide support of these early stages of the COOP/COG plan migration into LDRPS, there is more time to secure the support of the respective department heads. Without the LDRPS administrative support provided by the ROI grant program, much of this cost would be left to each Executive Branch department, many of which have new directors who are already faced with numerous requests for funding.

### Impact on Department Staff

Benefiting other agencies in the same way, the LDRPS software enhances the access COOP/COG personnel have to up-to-date plans, standard operating procedures, and emergency response checklists (aka, the latest information at their fingertips). HSEMD will also benefit from the positive impacts to other agencies as described above.

Additionally, ongoing technical and implementation support for LDRPS will assist HSEMD in establishing a comprehensive and effective program to ensure the continuity of operations of statewide government before, during, and after disaster situations which affect state government and the provision of essential services.

#### Number of Users

The number of COOP COG personnel in each Executive Branch agency varies depending on the agency's scope of responsibilities, or the number and complexity of its essential services. While one user exists in the smallest Executive Branch offices or commissions, multiple users work on the COOP/COG plans in the state's largest agencies. Enterprise wide, the total number of state personnel using LDRPS could potentially reach into the hundreds.

#### User Participation in Project Development

Users participate directly in the enterprise-wide development and implementation of this plan management tool. Executive Branch agencies, with guidance from the LDRPS Management Group, will be able to participate in two users' groups, a COOP/COG Users' Group and a LDRPS Users' Group. The following bulleted items summarize these two groups:

- A COOP/COG Users' Group supports the people from Executive Branch departments who are new to the COOP/COG planning process. This group will focus on overall COOP/COG issues, to provide users a base understanding of COOP/COG before they begin using LDRPS.
- A LDRPS Users' Group that focuses on issues specific to the migration of COOP/COG plans from MS Word to LDRPS. This group is comprised of users who are familiar with the general COOP/COG issues and are either underway with or ready to start entering data into LDRPS.

#### User Benefits from Availability

Please refer to the descriptions of how this proposal will impact department and other agency staff.

#### Project Assistance in Meeting Mandates

Statewide implementation of LDRPS will assist agencies maintain compliance with the requirements set forth in State of Iowa Executive Order 40, which specifies:

*"...all Iowa State executive branch agencies, in collaboration with the Homeland Security and Emergency Management Division of the Iowa Department of Public Defense, shall prepare a Continuity of Operations and a Continuity of Government plan to ensure the State's ability to deliver essential services under any circumstance."*

While Executive Order 40 is from the Vilsack Administration, it has not been rescinded by the present administration of Governor Culver.

Homeland Security Presidential Directives 3, 5, 7 and 20 as well as Federal Preparedness Circular 65 and National Response Plan, 9230, require the establishment and implementation of COOP and COG planning.

Iowa Code chapter 29C requires the HSEMD Administrator to administer emergency planning matters and prepare a comprehensive plan and emergency management program for homeland security, disaster preparedness, response, recovery, mitigation, emergency operation and emergency resource management for the state.

#### Compliance with Technology standards

LDRPS is in compliance and is consistent with statewide technology standards within both its system requirements and current location with the state IT system. The software is a Web based application that is accessible anytime from anywhere and provides the flexibility needed in the time of a disaster. LDRPS is currently functional and the information entered into the software is stored in the ITE Enterprise Data Warehouse. For further information, please see the attached *LDRPS System Requirements*.

#### Health, Safety, or Security Requirements

Enterprise wide implementation of LDRPS assists state agencies' adherence to the tenants set forth in Iowa Code 22.7 (Confidential Records). The content of continuity plans across state government contains information that is directly applicable to the language in Iowa's confidential records law. This code concerns security procedures or emergency preparedness information developed and maintained by a government body for the protection of employees, visitors, persons, or property in the care, custody, or under the control of the government body, if such disclosure could reasonably be expected to jeopardize such employees, visitors, persons, or property. Information contained in continuity plans is related to vulnerability assessments, security measures, and information contained in records that if disclosed would significantly increase the vulnerability of critical physical systems or infrastructures of state government.

LDRPS is a secure program that requires users to access information by obtaining a user name and password. In addition, an auditing feature within the software tracks when users enter the system, for how long they are logged in, and what information was accessed. This system will also serve as the primary secure storage location for agency plans, rather than relying on individual agencies to secure their continuity information.

#### Affect of Completion on Agency Processes

LDRPS allows for the streamlined update of continuity plans for all agencies. This happens through the centralization of statewide employee, building, and vendor data and lessens the manual processes for tracking and updating. The software also allows for remote access to plans via an Internet connection thus increasing flexibility in the geography extent of users. Another benefit of LDRPS is the built-in process enhancements for plan management and maintenance, automated notifications, and the distribution of the plans to agency users. This process allows for an increased awareness of plan details throughout the organization, which increases disaster preparedness. By using this software product, there is no longer the need to distribute updated hard copies of the plan to many different employees. A simple login is all they need to access critical details of the plan. This software tool allows for a centralized repository for plans for each agency, and throughout state government. All gathered supporting documentation can be kept in the same place and all COOP COG personnel have access to the same version of documents at the same time.

Please refer to the Impact on Other Agencies and Impact on Department Staff sections above for additional affects on agency processes.

**Section III: Financial Analysis**Estimated Project Costs and Funding Sources

<b>Table One: Estimated Project Cost</b>	<b>FY09</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>
Development and Implementation Costs	\$156,000	\$0	\$0	\$0	\$0
Recurring Costs (license/technical support)	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Total Costs	\$256,000	\$100,000	\$100,000	\$100,000	\$100,000

Dollar amounts included for development and implementation costs represent estimated contract personnel expenses of \$156,000. This dollar amount represents one technical position for administering the LDRPS software and assisting agencies in their LDRPS plan migration efforts. This position is expected to cost around \$75 per hour based on existing costs. The overall goal is to have general fund dollars secured by FY10 to support a full-time state position for the LDRPS software administrator.

Recurring annual costs of \$100,000 for FY09 through FY13 represent one plan and training support position, and purchasing of additional (if needed) LDRPS software licenses. This position, with the work currently split by the LDRPS software administrator and HSMED staff, would support the increased number of state agencies using LDRPS.

In addition to personnel support, additional costs will be incurred for software licenses and STROHL technical support for LDRPS. Some of this will be covered by the FY08 ROI monies but additional support is included in this application. Ideally, this cost will eventually be covered by the state general fund; however, it is shown in Table Two as a Pooled Technology Fund project application in FY09 and outlying years.

<b>Table Two: license and technical support</b>	<b>FY09</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>
General Fund	0	0	0	0	0
Federal or other funding	0	0	0	0	0
Pooled Technology Fund	100	100	100	100	100

This project will rely on state funding for its development and implementation as well the costs to sustain it. HSEMD's annual operating budget consists of 75 percent Federal funds and 25 percent state funds. Federal funds available for emergency management in any given year depends on the approved federal budget and resulting program allocations, thus are not a predictable form of funding for ongoing projects. As shown in Table Two, no Federal funds are expected to be available to support this project. Of the annual state funds provided to HSEMD, the entire 25 percent is dedicated to matching Federal grants, resulting in a difficult situation for HSEMD to financially support any enterprise wide project.

Estimated Cost Reductions

<b>Table Three: Projected Expense Reduction</b>	<b>FY09</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>
For Requesting Agency	\$1,005	\$2,375	\$2,375	\$2,375	\$2,375
For Other State Agencies	\$337,345	\$400,384	\$400,384	\$400,384	\$400,384
TOTAL Cost Reductions	\$338,350	\$402,759	\$402,759	\$402,759	\$402,759

Projected expense reductions as shown in Table Three only reflect reductions from using LDRPS associated with COOP COG personnel. Due to the enterprise wide focus of this project application, it was not realistic to have each state agencies develop independent projected expense reductions for equipment, printing, etc. in the given time to complete the application.

The basis of the methodology is that LDRPS reduces the time agency personnel need to do plan maintenance and notifications. For FY08 through FY12, HSEMD time savings were calculated and a dollar amount derived. The average hourly wage of \$22.84 for an Executive Branch employee (from the DAS publication *Just the Facts for 2005*) was used in all calculations. The savings HSEMD enjoyed were assumed to apply to all other state agencies proportionately to the number of employees in the agency, up to a cap of 15 times where existing economies of scale benefits are expected to level off potential savings. The attached MS Excel workbook *ROI Tables Version FY08* includes the worksheets used in deriving the expense reductions.

Projected expense reductions are lower in FY09 than future years because the time savings associated with using LDRPS are partially offset by the on-time increase in staff time necessary to migrate continuity plans into the plan management tool. It is assumed that agencies will require an average of 60 hours to completely move plans into LDRPS.

#### Other Benefits

Aside from the direct personnel savings depicted in the previous tables, it is challenging to explain the widespread benefits LDRPS use offers because it houses plans the state would benefit most from if they were never used. Even if the state activates the COOP/COG plans, the point of the plans is to limit losses rather than reduce expenditures.

Where LDRPS pays off the most is by enhancing the process by which COOP COG personnel can respond to an event compromising critical services within government or to the state as a whole. The faster essential services are maintained or restored, the greater the return on investment for LDRPS. In effect, investing in LDRPS is an insurance policy, and based on the conservative estimates in the tables above, between FY08 and FY12, supporting this policy now will generate a sizeable direct savings, separate from reducing the overall impact of emergency events that could effect state government.

Below are a couple of scenarios that describe the importance of a tool like LDRPS providing enhanced access to information needed in a disaster event:

- If DHS were to lose its network, and the 5,300 personnel the agency employs were to be idled for one hour, the equivalent loss in productive time of one full-time equivalent employee would be 2.5 years. This relates to a lost productivity cost of just under \$120,000, using only hourly take-home pay. Because of the availability of plans in LDRPS and the ease of extracting information, the use of this software may result in a 50 percent reduction in response time, which would equate to an immediate reduction of losses by \$60,000.
- If a disaster event or other situation would render the Capitol Complex and its buildings off limits to personnel for one weekday, the loss in productivity would be nearly \$900,000. Losing the use of just one building on the Capitol Complex for a day, such as the Hoover Building, results in \$206,000 in lost productivity for the 1,100 personnel work normally work there. LDRPS provides the accessibility and organization needed to respond quickly to events which results in the reduction of down time and significant reduction of losses.

Resources, such as people, knowledge, time, and documentation can all be more efficient with a plan management tool such as LDRPS. Saving time and increasing the efficiency of valuable resources inevitably saves the state money. Saving time, increasing preparedness, adopting efficient communication strategies, and fostering ease of proper documentation are all examples of soft dollar savings.

Of other significance, in July 2006, STROHL Systems, the developer of LDRPS, announced its merger with ESI, developer of WebEOC. WebEOC is Web based software and serves as the emergency response management tool used in the State Emergency Operations Center by all agencies responding to emergency events. STROHL Systems stated their intentions of integrating the plan management functionality and capability of LDRPS with the response management resources of WebEOC. This development emphasizes the importance of moving enterprise wide continuity plans into the LDRPS environment for the enhancement of statewide emergency response and ability to maximize the full functionality once the software programs are integrated.

The flexibility of LDRPS makes it an attractive candidate for other uses in emergency management planning. In addition to the interest state IT personnel have in entering their technology recovery plans into LDRPS, HSEMD is looking at how this plan management tool may be useful for other statewide emergency plans.

#### Estimated Return On Investment (ROI)

<b>Table Four: Calculated Estimate ROI</b>	<b>FY09</b>	<b>FY09</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>
For Requesting Agency	\$256,000	\$100,000	\$100,000	\$100,000	\$100,000
For Other State Agencies	\$338,350	\$402,759	\$402,759	\$402,759	\$402,759
TOTAL Cost Reductions	\$82,350	\$302,759	\$302,759	\$302,759	\$302,759

#### **Section IV: Auditable Outcome Measures**

For each of the following categories, list the auditable metrics for success after implementation and identify how they will be measured.

##### Improved customer service

The single largest measurable benefit to supporting the HSEMD use of LDRPS is that through this work, state agencies will be able to better plan how to maintain and/or restore essential functions and critical services prior to, during and after a disaster or any situation where normal operating functions are compromised. This will be measured on an agency-by-agency basis as each agency works with HSEMD to review and update their plans. Both internal and external customer service will be measured by this improved system of planning.

##### Citizen impact

Through the unified storage and management of multiple state agency plans, HSEMD's use of LDRPS will help to ensure the State of Iowa provides essential functions and critical services to the public. Through having a single location for the storage of and access to plans, state agencies will be able to more quickly and efficiently maintain the needed level of services to the citizens of Iowa. Effectiveness of this would be best measured through post incident reports on how well essential functions and critical services were maintained during each particular incident.

For example when the River Hills fire affected the DHS Child Support Collections and Customer Service Center many clients were concerned that they would not get their checks in a timely manner. Those who depended on the checks to pay bills would have been severely impacted. Because quick action was taken to get the unit up and running at another location, at the most, some clients experienced a delay of several days instead of several weeks for their checks



Cost Savings

Savings will be in no longer having to reproduce paper copies of the plans and mailing/shipping costs. For example if it costs \$600 to print 100 copies of a plan, then \$600 will be saved in printing costs alone, not to mention the cost of binders and delivery. Instead of printing, the elements of COOP/COG information will be accessible via a secure internet and only the information that is needed by an individual may be printed as needed. Over the long run, fewer planning hours will need to be dedicated to just COOP/COG planning because of the uniform format of entering data.

Project reengineering

Because COOP/COG is mandated by state and federal levels, this system answers the need for software that collects uniform information and puts it in a useable format. The STROLS LDRPS offers a better way of compiling the information needed for planning. Digitizing information is the new way to do business and paper plan development is quickly becoming outdated.

Tangible/Intangible benefits

Once the learning curve for using the STROLS tool is passed, the benefits will be an easier and uniform way to accomplish continuity planning. Again, the measure of success will be in reduction of man-hours needed to review, revise and update plans as have been done in the past. The new STROLS tool will automatically remind the planner of specific needed updates when they need to be updated. It is a system that has been around for a while and it is expected to continue to be supported and upgraded into the future. It will not be necessary to invest or convert to another system as often happens when a system goes away. The parent company of STROLS also owns the Web EOC software that we are currently using to run our Emergency Operations and compatibility is one of the expected benefits.